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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,315	01/04/2002	Wei Kuang Teng	BHT-3092-258	1997

7590 04/28/2005

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5205 LEESBURG PIKE
FALLS CHURCH, VA 22041

EXAMINER

SHIFERAW, ELENI A

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,315

Applicant(s)

TENG, WEI KUANG

Examiner

Eleni A. Shiferaw

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2002.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 04 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-8 are presented for examination.

Drawings

2. The drawings are objected to because Figure 3, 4, and 6 are missing legend. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2 and 4-7 are rejected under 35 U.S.C. 102(e) as being anticipated by King et al. (King, Patent No. US 6,530,000 B1).

As per claim 1, King teaches a method for data security with lock in a hard disk and a solid state disk, comprising following steps:

a procedure for partitioning a disk drive into a plurality of disk zones (col. 2 lines 54-58, and fig. 1 Disk 1...Disk N, and Disk N+1);

offering a plurality of registers for indicating a record of a size of the respective partitioned disk zone (col. 6 lines 61-65); and

offering a procedure of mathematical operation for treating a user input data and a register data (col. 6 lines 22-65).

As per claim 2, King teaches the method for data security with lock in a hard disk and a solid state disk, wherein the registers are a R_index register, a P_index register and a LBA_manupper register for indicating records of three disk zone sizes (Fig. 1 Disk 1...Disk N+1, and Disk N+1)

As per claim 4, King teaches the method for data security with lock in a hard disk and a solid state disk, wherein when the register $R_index \geq 1$ and the register $LBA_max > \text{the register } P_index > \text{the register } R_index$, the disk drive 1 is divided into three zones, the disk drive is divided into the user zone, the ROM zone and the protect zone (col. 7 lines 24-41, Fig. 1 Disk 1...Disk N+1, and Disk N+1; register index sizes are compared and then disks are divided/expanded into more disk sectors according to the comparison result).

As per claim 5, King teaches the method for data security with lock in a hard disk and a solid state disk, wherein when the register $R_index \geq 1$ and the register $LBA_max = \text{the register } P_index > \text{the register } R_index$, the disk drive is divided into two zones, the user zone and the ROM zone (col. 7 lines 24-41, Fig. 1 Disk 1...Disk N+1, and Disk N+1; register index sizes are compared and then disks are divided/expanded into more disk sectors according to the comparison result).

As per claim 6, King teaches the method for data security with lock in a hard disk and a solid state disk, wherein when the register $R_index \geq 1$ and the register $LBA_max > \text{the register } P_index = \text{the register } R_index$, the disk drive 1 is divided into two zones, the user zone and the protect zone (col. 7 lines 24-41, Fig. 1 Disk 1...Disk N+1, and Disk N+1; register index sizes are compared and then disks are divided/expanded into more disk sectors according to the comparison result).

As per claim 7, King teaches the method for data security with lock in a hard disk and a solid state disk, wherein when the register $R_index \geq 1$ and the register $LBA_max = \text{the register } P_index = \text{the register } R_index$, the disk drive is divided into the user zone (col. 7 lines 24-41, Fig. 1 Disk 1...Disk N+1, and Disk N+1; register index sizes are compared and then disks are divided/expanded into more disk sectors according to the comparison result).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over King et al. (King, Patent No. US 6,530,000 B1) in view of Nakashima et al. (Nakashima, Patent No.: US 6,189,014 B1).

As per claim 3, King teaches all the subject matter as described above.

King does not explicitly teach wherein said the disk zones are assigned to a ROM zone.

However Nakashima discloses the method for data security with lock in a hard disk and a solid state disk, wherein the said disk zones are assigned as a user zone, a ROM zone and a protect zone (Fig. 1 and 5A & 5B No. 11a and 11b).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Nakashima within the teachings of King because it would allow to save data in read only.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over King et al. (King, Patent No. US 6,530,000 B1) in view of Han et al. (Han, (Pub. No.: US 2005/0015652 A1).

As per claim 8, King teaches all the subject matter as described above. King teaches the method for data security with lock in a hard disk and a solid state disk, King does not teach wherein a password operation mode is by way of a mathematical operation with the user input data and the register data.

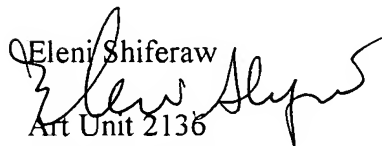
However Han teaches wherein a password operation mode is by way of a mathematical operation with the user input data and the register data (page 3 par. 0030 lines 41-45).

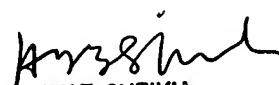
Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Han within the teachings of King because it would allow protect from unauthorized overwriting.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A. Shiferaw whose telephone number is 571-272-3867. The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eleni Shiferaw

Art Unit 2136
April 15, 2005


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100